Rice University
Department of Psychology

PSYC 339: Statistical Methods for Psychology

Fall 2010
Tuesdays and Thursdays 1:00 – 2:30
Sewall Hall 303

Instructor

Dr. Philip Kortum
488 Sewall Hall
Email: pkortum@rice.edu
713-348-4813
Office Hours Tuesday and Thursday 2:30-3:30, or by appointment

Teaching Assistants

Melissa Gallagher, Section 1, 3:00 - 03:50 W: melissa.gallagher@rice.edu
Yu-Hsuan Chang, Section 2, 9:00 - 09:50 F: yu-hsuan.chang@rice.edu
Jason Randall, Section 3,:3:00 - 03:50 R: jason.randall@rice.edu

Required Texts:

Gravetter, F.J. and Wallnau, L.B.(2008). *Statistics for the Behavioral Sciences*, 8th ed, Belmont CA: Wadsworth

Date	Lecture	Topic	Readings	Homework Due All EVEN problems
8-23	1	Course Logistics, Intro to statistics	Chapter 1	
8-25	2	Frequency distributions Central Tendency	Chapter 2 Chapter 3	Chapter 1
8-30	3 4	Measures of variability Standardized z scores	Chapter 4 Chapter 5	Chapter 2 Chapter 3
9-1	5	Probability	Chapter 6	Chapter 4 Chapter 5
9-6	5	Probability		
9-8	6	Sample means and distributions	Chapter 7	Chapter 6
9-13	7	Resampling	Notes	
9-15	8	Hypothesis testing	Chapter 8	Chapter 7
9-20		No Class – Instructor at HFES		
9-22		No Class – Instructor at HFES		
9-27		**EXAM 1 Lectures 1-7**		
9-29	8	Hypothesis testing		
10-4	9	Introduction to the t statistic	Chapter 9	Chapter 8
10-6	10	t test for 2 independent samples	Chapter 10	Chapter 9

10-11		**MIDTERM RECESS – No class**		
10-13	11	t test for 2 related samples	Chapter 11	Chapter 10
10-18	12	Estimation	Chapter 12	Chapter 11
10-20	13	Introduction to analysis of variance	Chapter 13	Chapter 12
10-25		**EXAM 2 Lecture 8-12**		
10-27	14	Repeated measures ANOVA	Chapter 14	
11-1	14	Analysis of variance continued		Chapter 13
11-3	15	Two Factor ANOVA	Chapter 15	
11-8	16	Correlation	Chapter 16	Chapter 14
11-10	16	Correlation and Causation	Chapter 16	Chapter 15
11-15	17	Regression	Chapter 17	Chapter 16
11-17	18	Chi Square Statistic	Chapter 18	Chapter 17
11-22	19 20	Non-parametric Statistics	Chapters 19 Chapter 20	Chapter 18
11-24		**THANKSGIVING – No class**		
11-29	20	Non-parametric Statistics		Chapter 19
12-1	21	Review for Comprehensive Final Examination, Lectures 1-20		Chapter 20

Course communication

Lecture notes will be posted immediately after the lecture and can be found on Owl Space

You are always welcome to email me questions about the lecture material. Homework questions should initially be directed to your TA. Of course, you are always welcome to stop by during office hours and discuss any questions you may have.

Recitation Sections

You must be registered for one section of 338 (recitation). The primary purpose of recitation is to introduce you to computer methods in statistics. We will be using SPSS. During recitation, your TA's will also work supplementary problems, cover material that might not have been covered in lecture, help with homework questions and problems, and help you in preparation for the examinations. Remember, a portion of your grade depends on completion of the computer exercises. All Recitations are held in Sewall Hall 133.

Participation in Research Methods:

Statistics (this class) and Research Methods (340) are partner classes. The skills you learn here will be directly applied next semester when you perform experiments, collect data and then analyze that data using the techniques learned here. As part of this symbiotic relationship, you will need to participate in 4 studies that are being conducted as part of the coursework being done in 340. This requirement is separate from the normal Psychology research pool (i.e. Experimetrix) and so we won't be using that system to track this requirement. I will give you more details in class. Of course, when you take 340 next semester, *you* will benefit from having access to 339 participants for *your* experiments (the circle of life and all that…). If you have objections to participation in 339 experiments, please let me know and I have alternate assignments that will fulfill this requirement.

Grading:

Your grade will be based on the homework, computer methods homework, 2 in-class exams and the comprehensive final. Each of these will be weighted as shown below

Homework	15%
Computer labs	5%
340 Participation	5%
Exam 1	25%
Exam 2	25%
Comprehensive Final Exam:	25%

You will be assigned all of the EVEN homework problems at the end of each chapter. The homework grade will be based on the best 18 of the 20 homework assignments that you turn in. Homework is due at the *beginning of class* on the date indicated on the syllabus. PLEASE staple your homework together for the benefit of your TAs (and you, so none of your homework gets lost). LATE HOMEWORK WILL NOT BE ACCEPTED, since you have the ability to drop your 2 lowest homework grades. Homework will be returned to you in recitation.

No makeup examinations will be given except for documented cases of illness.

Computer assignments will be completed in recitation. Your recitation computer grade will be based on the best 11 of the 12 computer assignments that you complete.

Examination material will include everything that is covered in the book chapters and my lecture material. This material will be very closely related, but I may not lecture on everything that is in the book, and some things covered in lecture are not covered in this book. You are still responsible for that material on examinations!

Final letter grades will be assigned on an absolute scale, shown below

97-100	A+
93-96	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	F

Calculators

You will need a basic function calculator for the homework and tests. Square root is the only advanced function that you will need. If you have a calculator that has advanced statistical functions you may use the calculator but you will *not* be allowed to use any of the statistical functions during the exams.

Disabilities:

If you have a documented disability that requires accommodation, please let me know so we can confidentially discuss your needs. You will also need to register with the Disability Support Services Office in the Ley Student Center.

Honor System Policy:

As with all endeavors at Rice, you are expected to adhere to the Honor Code and follow the guidelines given in the Blue Book. Exams are given under the honor system. Homework may be done with other students, but only for the purpose of help and support. Each student must complete all of his/her own homework. Students are encouraged to bring any concerns involving academic integrity to the attention of the instructor.